Secondary Predication and Linguistic Variance

Tomoko YASUTAKE

(Department of Teaching Japanese as a Foreign Language)

1. Introduction

It is well-known that predication is the relationship between a predicate and its subject in a sentence. For example, in a sentence such as *Chris likes vegetables,* the property of liking vegetables is said to be predicated of Chris. Thus, a predication regularly makes an assertion or proposition about the subject of a sentence. The predication makeup varies both intra-linguistically and cross-linguistically, in accordance with lexical semantics and constructional properties. One of the sources of this variation seems to be the way duplex predication, that is primary predication plus secondary predication, is synthesized in a simplex sentence. This paper aims to reassess the semantic aspects of certain groups of English expressions from this perspective, and to explore the cases of duplex predication in simplex sentences. Various types of secondary predication will be examined. It will be pointed out that the prototypical function of the secondary predication is to present a further specification (often delimitation) or entailment (typically a contrapositive proposition) of the primary predication.

2. Types of Secondary Predication in English

It is generally assumed that a verb designates either an action, a process or a state. However, cognitive-semantic analyses of certain instances of simplex sentence, comprising just one verb, reveal the existence of a secondary predication beside the primary one. Examples follow:

(1) a. Chris only drinks gin.
 b. Pat danced her weary.
 c. I melted the butter.
 d. Dana taught him Japanese.
 e. Lee kicked Kim into the room.

Each of the sentences in (1) is interpreted as designating an action. But they all have a secondary, often covert, predication, which is closely connected with the primary predication. (1a) is an instance of an ambiguity which is revealed when we spell out the secondary predication:[1]

(1) a′. Chris does not drink anything else.
 a″. Chris does not prepare/produce/buy gin.

The primary and the secondary predications here appear to be in a contrapositive relationship.

The expressions (1b), (1c) and (1d) all have a resulting state as secondary predication:

(1) b′. She became weary.
 c′. The butter melted.
 d′. He acquired Japanese.

The secondary predication of (1e) is that of a process:

(1) e′. Kim's location was changed from outside to inside of the room.

The rest of this paper is devoted to the examination of various sources of secondary predication in English.

3. Focusing Adverbs

(1a) is a typical example of an effect of a focusing adverb on predication. Similar examples are found in the following:

(3) a. You can get a B grade *just* for that answer.
  b. *Even* Bob was there.
  c. We bought some beer *as well.*
  d. The girls *especially* objected to his manners.[2]

In the absence of a specific sentence stress or a context, all these sentences are potentially ambiguous. The secondary predication of unmarked interpretation of these sentences will be something like the following:

(3) a′. You cannot get a B grade for nothing else.
  b′. Bob was one of the least expected persons to be there.
  c′. We bought other things.
  d′. Other people did so, but not so much as the girls.

Notice the crucial role played by the secondary predication in all these cases: it serves to disambiguate and to pinpoint the exact meaning of the sentence as a whole.

According to Quirk et al. (1985), functionally, there are two main subdivisions: restrictive and additive. Restrictive adverbs indicate that the utterance concerned is true in respect of the part focused. There are two subsets, i.e. exclusives, which restrict the application of the utterance exclusively to the part focused (cf. 1a and 3a) and particularizers, which restrict the application of the utterance predominantly to the part focused (cf. 3d). Additive adverbs indicate that the utterance concerned is additionally true in respect of the part focused (cf. 3b and 3c). It is in the case of exclusives that the relationship between the main predication and the secondary predication resembles that of contraposition.

4. Resultative Constructions

Goldberg (1995, 3-4) subcategorized English argument structure constructions into five types:

(4) 1. Ditransitive X CAUSES Y to RECEIVE Z   Subj V Obj Obj$_2$
        Pat faxed Bill the letter.
  2. Caused Motion X CAUSES Y to MOVE Z   Subj V Obj Obl
        Pat sneezed the napkin off the table.
  3. Resultative X CAUSES Y to become Z   Subj V Obj Xcomp
        She kissed him unconscious.
  4. Intransitive Motion X MOVES Y   Subj V Obl
        The fly buzzed into the room.
  5. Conative X DIRECTS ACTION at Y   Subj V Obl$_{at}$
        Sam kicked at Bill.

Of these, the fifth type, conative construction, simply designates an action and has no secondary predication. All the other four types have a secondary predication about the resulting state of an action integrated in their propositional meanings. In the first three cases, the secondary predication is made about the object of the action. Thus, with regard to the example sentences in (4), the following predications are detected, respectively.

(5) a. Bill received the letter.
  b. The napkin's location changed (from on to off the table).
  c. He became unconscious.

In the case of the fourth type, the secondary predication concerns the change of location of the subject.

(5) d. The fly's location changed (from being outside to inside of the room).

Where do those secondary predications come from? In the case of (5b), (5c) and (5d), they are ostensively marked by the relationship between the adjunct complements, *off the table, unconscious, into the room,* and the object/subject of the sentence. In the case of (5a), which has no adjunct complement, it is simply the

ditransitive construction that appears to guarantee the successful transfer of the patient of the action.

In the following four sections, some relevant properties of each type will be examined.

5. Resultative Phrases as Delimiters

Let us begin with the clearest cases, where an adjunct of resultative state is present. First, the case with activity verbs which do not denote result by themselves. Consider the following pair of examples with a verb of exerting force.

(6) a. Martha pushed the cart.

b. Martha pushed the cart *into the shed*. (endpoint)

The action, hence the eventuality, described by (6a) is not delimited. In (6b), on the other hand, the eventuality is delimited by the presence of a prepositional phrase[3]. The latter is a prototypical case of a directional prepositional phrase marking a resulting state ('The cart is in the shed').[4] But sentences like (6b) remain basically action-oriented: the primary predication is an action. The resulting state marked by the prepositional phrase, denoting the achieved location of the affected entity, is the secondary predication.

The relationship between the primary predication and the secondary predication here is that of causality. Croft (1991, 160) discusses the criterion of causality in individuating events and notes that individual lexical items appear to denote only causally linked events. Compare the following pair:

(6) c. The boat sailed into the cave.

d. *The boat burned into the cave.

(≠ The boat was burning as it entered the cave.)

The unacceptability of (6d) is due to the difficulty of seeing a causal relationship between the two events, the boat's burning and its entering the cave. It is not possible to combine two causally unrelated events that are simultaneous and possibly also spatially co-occurring in this construction.

According to Tenny (1987, 190), there may be at most one 'delimiting' associated with a verb phrase and that delimited (telic) eventuality necessarily includes a goal, aim, or conclusion. Here, we simply note the fact that only goal expression designates resulting state. Consider the following:

(6) e. The rat ran under the table.

e′. The rat is now hidden under the table. ⟨goal⟩

e″. The rat did consecutive movement of running. ⟨location⟩

(6e) is ambiguous between the (6e′) and (6e″) readings, but it is only in the former reading that a secondary predication concerning the rat's achieved position is detected.

Let us look at some examples with delimiting adjectives which specify an achieved state:

(7) a. Tom painted the fence *blue*.

b. Pat grew *old*.

In (7a), the primary predication is Tom's action and the secondary predication is that the fence became blue as the result. In (7b), the primary predication is Pat's aging process and the secondary predication is the resulting state of his being old. In both cases, the verbs, by themselves, do not denote result.

6. Resultative Argument Construction

Goldberg's resultative argument construction with non-causative action verbs is another case of resulting state being lexically specified.

(8) a. Mary kissed him *unconscious*. (cf. 4-3)

b. Pat danced her *weary*. (=1b)

c. She laughed him into silence.

Unlike the cases in the previous section, the adjectives and the prepositional phrase in (8) do not function as delimiters of eventuality. They denote the state of the patient as the result of the action. Here, too, the primary predication is the action, and the secondary predication is the resulting state of the patient. In accordance with the Goldberg's (1995, 62) hypothesis cited below, the duplex predication system accommo-

dates a direct causal relation between the action and the resulting state.

> Causal Relation Hypothesis: The meaning designated by the verb and the meaning designated by the construction must be integrated via a (temporally contiguous) causal relationship.

Next consider the following examples with infinitival complement:

(9) a. Mary sang the baby to sleep.

b. John persuaded Mary to come.

Superficially, the two sentences look like belonging to the same class, but they differ in their underlying structures and hence their predication systems. There are different theories concerning the syntactic aspects of these sentences, but they fall outside the concern of this paper. Their structural difference is evident, since (9a) cannot be passivized, whereas (9b) can:

(9) a'. *The baby was sung by Mary to sleep.

b'. Mary was persuaded by John to come.

The primary predication of (9a) is about Mary's act of singing, and the secondary predication is the resulting state of the baby's having fallen to sleep. In (9b), the primary predication is John's act of persuading Mary, and the secondary predication is Mary's changed state of mind. The notable difference is that, while (9a) denotes a physical result, (9b) denotes only a mental change. Just like other verbs under consideration in this section, *persuade* is not a causative verb: (9b) does not entail that Mary came. Even if she actually did as the result of John's persuasion, it is not what is referred to by (9b). The relationship between the facts of John's persuasion and Mary's coming in such a case, is only an indirect and temporary non-contiguous causal relationship.

The fact that, structurally, (9b) is a complex sentence does not pose a problem for our analyses of duplex predication in a simplex sentence. The duplex predication detected in (9b) is shared by the following simplex sentence:

(9) b''. John persuaded Mary.

7. Caused-motion Construction

Consider the following examples with a locative prepositional phrase.

(10) a. She put the phone on the desk.

b. Lee kicked Kim into the room. (=1e)

c. Pat sneezed the napkin off the table. (cf.4-2)

Put is a change of location verb and lexically designates a type of caused-motion event. It requires a locative phrase denoting the attained position of the patient NP. But *kick* and *sneeze* do not. The former is a transitive verb with *Kim* as its object, while the latter is an intransitive verb, hence *the napkin* is not its object. In spite of these lexico-syntactic differences, they all occur in what Goldberg (1995) calls caused-motion construction. When they do, as in (10), the whole sentence has the secondary predication denoting the attained position of the moved entity.

Let us look at the following lexico-syntactic alternation:

(11) a. He loaded eggs into the basket.

b. He loaded the basket with eggs.

(12) a. She sprayed water onto the flowers.

b. She sprayed the flowers with water.

The well-known semantic difference between these pairs of sentences may be explainable by Pinker's (1989, 67) holistic requirement on the grammatical object in general, whereby the grammatical object must be completely affected (covered, filled, etc.). What concerns us here is the crucial fact that action denoted by the primary predication remains the same in either version but that the resulting states denoted by the secondary predications differ as follows:

(11') a. Eggs are in the basket.

b. The basket was full of eggs.

(12') a. Water is on the flowers.

    b. The flowers are covered with water.

The following are associated examples with verbs of putting/removing:

(14) a. Betty put butter on the bread.

      b. Betty buttered the bread.

(15) a. Jim removed peel from the apple.

      b. Jim peeled the apple.

(16) a. Jack put the money into his pocket.

      b. Jack pocketed the money.

In all these sentences, the primary predication denotes an action performed by the subject, but only the (a) sentences have secondary predication denoting the attained state/position of the object.

    The following is an interesting example with a container noun in object position:

(17) We emptied the tank into the sink.

The tank here refers not to the container itself but to its content. The prepositional phrase *into the sink* specifies the attained location of the unidentified content. The primary predication here is the causation of the tank's becoming empty of its content and the secondary predication is the resulting state of the container and the destiny of its former content.

8. Lexically Delimited Cases

    Let us next consider the cases like (1c) with verbs that are lexically delimited. Change of state verbs like *break* and *open*, always denote resulting state, hence do not appear in any of Goldberg's (1995) argument structure constructions. Compare the following pairs, which are variously called 'lexical causative alternation', 'anticausative alternation,' etc.

(18) a. I melted the butter. (=1c)

      b. The butter melted.

(19) a. John rolled the ball.

      b. The ball rolled.

The anticausative alternation applies to verbs specifying a particular effect, either a change of state or a change of position, but only if they signify nothing but an effect, that is, if they are mute as to what kind of event caused the effect. Compare the following:

(20) a. He broke his promise/the contract/the world record.

      b. *His promise/The contract/The world record broke.

According to Levin & Hovav (1995, 105), this verb does not detransitivize for these choices of object because the eventuality it describes cannot come about without the intervention of an agent. Notice, however, that the passive version is possible, since it is compatible with eventuality that are brought about by some external cause/agent.

(20) c. His promise/The contract/The world record was broken.

We will return to predication characteristics of the passive in Section 10 below.

    Detransitivization is possible in the following examples, precisely because an externally caused eventuality can come about without the intervention of an agent in these cases.

(21) a. I solidified the mixture./The mixture solidified.

      b. The cook caramelized the sugar./The sugar caramelized.

    Returning back to the issue of duplex predication, primary predication of the lexical causative construction is an action, while that of the anticausative version is a process. The secondary predication of both versions designate the achieved state, which originates in the lexico-syntactic property of the construction. Look at the following examples:

(22) a. The river froze *solid.*

      b. The climbers froze *to death.*

The resultative phrase in the anticausative construction provides a further specification of the achieved state.

    The following examples are exception to 'one argument one change rule.'

(23) a. We broke the walnuts into the bowl.

    b. We sliced the mushrooms into the bowl.

The patient here goes through two different changes, namely, change of state and change of location. The received explanation for the well-formedness of this construction was that the patient's shape is different by the time it undergoes the second change. What is relevant for the purpose of this paper is the existence of secondary predication in this type of construction, designating the achieved shape and the location of the patient.

Consider, next, the *way* construction, which also contains duplex predication, consisting of action (primary) and the achieved state (secondary).

(23) a. Pat fought her way into the room.

    b. Volcanic material blasted its way to the surface.

    c. The hikers clawed their way to the top.

9. Ditransitive Construction

Let us move on to the cases of well-known opposition of caused motion construction vs. ditransitive construction. Consider the following pair of sentences:

(24) a. Dana taught him Japanese. (=1d)

    b. Dana taught Japanese to him.

In both these sentences, the primary predication denotes the action. The attested semantic difference, that is, the ditransitive construction in (24a) designates a successful acquisition of knowledge, while the caused motion construction in (24b) does not, lies in the secondary predication. The 'holistic requirement' on the grammatical object in general, which we saw in Section 7 above, appears to be relevant here, too. *Him* in (24a), being in grammatical object position, is interpreted as being completely affected by Dana's teaching, while that in (24b), being in oblique position, is interpreted simply as the intended recipient of the action. At the same time, Quirk et al.'s (1985) general principle of 'end-focus' also seems to be behind the difference in interpretation. In the caused motion construction, the sentence-final prepositional phrase is the focused element: hence the secondary predication functions to specify the intended recipient of the communication act.

According to Pinker (1989), *teach* belongs to one of the classes of dativizable verbs, namely, verbs of communicated message. Other typical classes of dativizable verbs are verbs that inherently signify acts of giving: e.g., *give, sell,* verbs of sending: e.g., *send, mail,* verbs of creation: e.g., *bake, build,* verbs of obtaining: e.g. *get, buy,* etc. However, as Goldberg (1995, 54) pointed out, there are other factors involved in the issue of dativizability. Consider the following sentences:

(25) a. Joe kicked Bill the ball.

    b. Joe kicked the ball to Bill.

    c. Joe kicked the ball.

The participants of *kick* are kicker and kicked, for (25c) is a complete sentence. The verb does not lexically require a recipient NP. It is the ditransitive construction that contributes a recipient role not associated with a participant role of the verb in (25a). The construction produces the secondary predication about a successful transfer. In the caused motion construction, in (25b), the adjunct prepositional phrase has the secondary predication specifying the intended recipient of the instantaneous causation of ballistic motion.

10. Passives

Let us next consider the predication characteristics of the passive construction. Compare the following sentences:

(26) a. Betty shot John.

    b. John was shot.

    c. John was shot by Betty.

    d. John was shot dead.

(26a) is a straightforward action sentence, predicating the subject's action. Obviously, there is no secondary predication. Passive sentences, (26b), (26c) and (26d), on the other hand, are all primarily a statement about the surface subject. (26b) simply describes the subject's ill-fated condition with no further specification of its cause. (26c) and (26d) present primarily the state of the subject (primary predication) and secondarily the specification of the cause (secondary predication).

The attested contrast shown below is also explainable in the same vein.

(27) a. This bed was slept in by George Washington.

    b. ?This bed was slept in by John.

The well-formed (27a) is a statement of a characteristic of the bed (primary predication) with further specification of the reason (secondary predication). The oddity of (27) lies in the discrepancy between primary predication and secondary predication: the fact that somebody named *John* slept in the bed is not, of itself, felicitous for its characterization. The following so-called unusual passives share the same combination of primary and secondary predication, as in (27a).

(28) a. This book is owned by the library.

    b. These drastic measures are justified by the situation.

    c. The team was liked by the fans.

    d. It was thought to be raining.

    e. The morning star was believed to be different from the evening star.

11. Prosodic Aspects

In Section 9 above, we made reference to the principle of 'end-focus.' There expected to be a close connection between predication system and prosodic structure of a sentence. Much work remains to be done in this particular area. At this point, we must be careful not to make hasty statement, but it does seem to be the case that a stressed element designates a secondary predication, when there is one. The case of focusing adverbs discussed in Section 3 is a prime example.

Also, compare the following sentences:

(29) a. Lenin DIED.

    b. JOHNSON died.[5]

(29a) exemplifies an unmarked stress pattern, it conveys the information that Lenin died (primary predication) and that 'to die' was what people expected of him: the secondary predication is provided by the unmarked stress pattern. (29b), on the other hand, has a marked stress. It convey the news of Johnson's death (primary predication) and that he died unexpectedly. The secondary predication is provided by the marked stress on the subject of the sentence.

12. Conclusion

In this paper, a brief survey of the duplex predication phenomenon in English was conducted. Lots of works remain to be done before the grammatical status and the semantic nature of different types of secondary predication will be firmly established. We have not yet discussed the nature of secondary predication in relation to such notions as connotation, entailment, inference and implicature. Cross-linguistic comparison is beyond the scope of this short paper, but there are a few words (and space alone forbids more) to be said concerning a fact in Japanese. Many of the secondary predication discussed here do not seem to exist in Japanese translation. For example, a literal translation of *I melted wax* does not have the secondary predication designating the attained state of melted wax. The Japanese version merely denotes the action without a commitment to the end-result. A further investigation in this area may well open a new horizon for comparative linguistics of the two languages.

Notes

[1] Here I do not consider other interpretations which are imposed by a marked sentence stress or a special context.

[2] The examples are cited from Quirk et al. (1985).

[3] The delimiting function of resultative phrases can be seen by examining the effect of adding a resultative phrase to a sentence that in the absence of such a phrase may receive a nondelimited interpretation. (Levin & Hovav: 1995, 56)

    i.   The waiter wiped the table (in/for two minutes).

    ii. The waiter wiped the table dry (in/*for two minutes).

[4] Tenny (1987: 190, 181) points out that there may be at most one 'delimiting' associated with a verb phrase and that goal phrases can be a prepositional phrase only if they serve to specify further the endpoint inherent in the verb's meaning. Thus, in the expression *eat an apple to the core,* the function of the prepositional phrase is to specify the endpoint of the event.

[5] The examples are cited from Ellen Prince's lecture at 1999 Linguistic Institute, University of Illinois at Urbana-Champaign.

References

Croft, W. 1991. *Syntactic categories and grammatical relations.* Chicago: University of Chicago Press.

Goldberg, A. 1991. It can't go up the chimney down: Paths and the English resultative. *BLS* 17, 368-378.

Goldberg, A. 1995. *Constructions: A construction grammar approach to argument structure.* Chicago: The University of Chicago Press.

Ikegami, Y. 1991. *Eibunpo o kangaeru.* Tokyo: Chikuma Shobo.

Kroch A. and C. Small. 1978. Grammatical ideology and its effect on speech. In D. Sankoff ed. *Linguistic variation: Models and methods.* New York: Academic Press.

Levin, B. and M.R. Hovav. 1995. *Unaccusativity: At the syntax-lexical semantics interface.* Cambridge, MA: MIT Press.

Nakau, M. and Y. Nishimura. 1998. *Kobun to jisho-kozo.* Tokyo: Kenkyusha.

Tenny, C. 1987. Grammaticalizing aspect and affectedness. unpublished MIT dissertation.

Pinker, S. 1989. *Learnability and cognition: The acquisition of argument structure.* Cambridge, MA: MIT Press.

Rothstein, S.D. 1983. The syntactic forms of predication. Ph. D. dissertation. MIT.

Quirk, R. and et al. 1985. *A comprehensive grammar of the English language.* London: Longman

Williams, E. 1995. *Thematic structure in syntax.* Cambridge, MA: MIT Press.